Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

# NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-9 SEPTEMBER 16, 2002

**Operations and Services** 

#### HYDROLOGIC SERVICES PROGRAM

**NOTICE:** This publication is available at: http://www.nws.noaa.gov/directives

**OPR:** OS3 (G. Austin) Certified by: OS (G. Mandt)

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- 1. As the Nation grows, more segments of society are becoming increasingly vulnerable to an excess or lack of water. Timely and accurate river and flood forecasts and warnings spanning minutes out to months in the future are becoming more critical to decision making processes which affect all citizens. This directive governs the National Weather Service's (NWS) provision of hydrologic services to its customers and partners.
- 2. The objectives of the NWS Hydrologic Services Program are to provide river and flood forecasts and warnings for the protection of life and property and to provide hydrologic information for the Nation's economic well-being.
- 3. This directive establishes the following authorities and responsibilities:
- 3.1 The Office of Climate, Water, and Weather Services (OCWWS) will:
  - a. Establish national policies and procedures for the provision of consistent NWS hydrologic forecast and warning services.
  - b. Conduct meteorological, climate, training, performance and awareness, and observing service programs which support hydrologic operations and services.
  - c. Consolidate, analyze, and oversee national performance and effectiveness indicators of hydrologic services.
  - d. Provide outreach to national customers to promote hydrologic services.
  - e. Collect operationally significant hydrologic information and prepare public summaries and internal notification reports.

- 3.2 The Office of Hydrologic Development (OHD) will:
  - a. Plan, develop, demonstrate, and integrate scientific techniques and software capabilities for the Hydrologic Services Program.
  - b. Formulate and maintain a research and development plan in response to requirements of the Hydrologic Services Program.

## 3.3 NWS regional headquarters will:

- a. Ensure weather forecast offices (WFO) and river forecast centers (RFC) are organized, trained, and equipped to fulfill the Hydrologic Services Program obligations within their region.
- b. Provide hydrology-related requirements to OCWWS.
- c. Develop supplements to procedural directives for the Hydrologic Services Program.
- d. Provide technical and operational support to WFOs and RFCs.
- e. Oversee hydrologic service outreach efforts.
- f. Evaluate performance and effectiveness of hydrologic services within their region.
- g. Ensure WFOs and RFCs comply with Hydrologic Services Program directives and regional supplements.

### 3.4 The National Centers for Environmental Prediction (NCEP) will:

- a. Provide meteorological forecast guidance serving as input to the hydrologic forecasting process for all time scales.
- b. Prepare national products which integrate hydrometeorological information produced by WFOs and RFCs.

#### 3.5 RFCs will:

- a. Conduct hydrologic modeling and forecast operations for rivers, reservoirs, and lakes in large, multi-state areas of responsibility.
- b. Produce the forecast and guidance information used in NWS hydrologic products.

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c. Provide products describing observed, current, and future hydrometeorological conditions over their areas of responsibility such as discussions, significant river flood outlooks, quantitative precipitation estimates, and water supply forecasts.

#### 3.6 WFOs will:

- a. Provide hydrologic forecasts, watches, warnings, statements, and related products for local service areas. These products cover events ranging from short-fused flash floods to regional droughts and slow-rising floods on large rivers and lakes.
- 4. Performance measures include:
  - a. Stage forecast accuracy.
  - b. Warning products probability of detection, false alarm ratio, and lead time.
- 5. This policy directive is supported by the references and glossary of terms listed in Attachment 1.

Signed September 16, 2002
John J. Kelly, Jr. Date
Assistant Administrator
for Weather Services

#### **Attachment 1**

### REFERENCES, GLOSSARY OF TERMS, AND SUPPORTING INFORMATION

# References

NWS Instruction 10-901, Hydrologic Services Program Management

NWS Instruction 10-902, Hydrologic Requirements Process

NWS Instruction 10-903, Geographic Areas of Responsibility

NWS Instruction 10-911, River Forecast Center Operations

NWS Instruction 10-912, River Forecast Center Products Specification

NWS Manual 10-913, River Forecast Center Product Examples

NWS Instruction 10-921, Weather Forecast Office Hydrologic Operations

NWS Instruction 10-922, Weather Forecast Office Hydrologic Products Specification

NWS Manual 10-923, Weather Forecast Office Hydrologic Product Examples

NWS Instruction 10-924, Weather Forecast Office Hydrologic Reporting

NWS Instruction 10-925, Guidelines for Weather Forecast Office Hydrologic Services Manuals

NWS Instruction 10-930, National Hydrologic Products Specification

NWS Instruction 10-931, National Operational Hydrologic Remote Sensing Center

NWS Instruction 10-940, Hydrologic Data Network Services

NWS Instruction 10-941, Flood Warning Systems

NWS Manual 10-942, Flood Warning Systems Manual

NWS Instruction 10-943, Reporting Formats for Real-Time Data

NWS Manual 10-944, Standard Hydrometeorological Exchange Format (SHEF) Manual

NWS Manual 10-950, Definitions and General Terminology

#### Terms

Hydrologic Services Program - The collective activities undertaken by NWS headquarters, regional headquarters, and field offices (i.e., RFCs, WFOs, and the NCEP) to support and provide water-related services in the form of forecasts, warnings, and associated products for the Nation's river systems.